

ABSTRACT OF THE DISCLOSURE

Hydroplaning detection apparatus operates to feature extract a change pattern of vibration detection values for the 5 respective front and rear wheel sides of a vehicle by excluding inherent tire influences on the vibration detection values, to execute pattern matching between the front and rear wheel sides on the basis of the feature extracted change patterns of the detection values, to obtain a time difference from a coincidence 10 of the change patterns, and to calculate a first vehicle speed based on the time difference and a reference distance such as a wheel base of the vehicle. The hydroplaning detection apparatus also operates to calculate a second vehicle speed based on an average value of wheel speeds detected by the rear wheel speed sensor. 15 The hydroplaning detection apparatus determines that hydroplaning has occurred if a deviation between the first vehicle speed and the second vehicle speed is greater than a certain value.